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CONTENTS

<i>Relations of Salary to Title in American Universities:</i> PROFESSOR JOHN MAXSON STILLMAN	241
<i>The American Association for the Advancement of Science:—</i>	
<i>Section G—Botany:</i> DR. TRACY E. HAZEN..	259
<i>Scientific Books:—</i>	
<i>Marchal's Recherches expérimentales sur la sexualité des spores chez les mousses dioïques:</i> DR. A. F. BLAKESLEE. <i>Peglion's Le mallatie crittogamiche delle Piant coltivate:</i> HAVEN METCALF.....	272
<i>Scientific Journals and Articles.....</i>	274
<i>Societies and Academies:—</i>	
<i>The St. Louis Chemical Society:</i> DR. C. J. BORMEYER	274
<i>Discussion and Correspondence:—</i>	
<i>Genetic Logic:</i> PROFESSOR J. MARK BALDWIN	274
<i>Special Articles:—</i>	
<i>Symmetry in the Big Claws of the Lobster:</i> PROFESSOR FRANCIS H. HERRICK.....	275
<i>Current Notes on Meteorology:—</i>	
<i>The Weather of Saxony; Railroad Building in Arid Regions; Meteorology in Egypt; Rainfall and Altitude; The 'Scotia' Results:</i> PROFESSOR R. DE C. WARD.....	277
<i>Mr. Rockefeller's Gift to the General Education Board</i>	278
<i>Scientific Notes and News.....</i>	279
<i>University and Educational News.....</i>	280

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RELATIONS OF SALARY TO TITLE IN AMERICAN UNIVERSITIES¹

IN this paper is considered the problem of the relation existing between salary and title, under the conditions ruling in American colleges and universities. What adjustment of these relations is most favorable to the effectiveness of the institution concerned? In general, three types of adjustment are possible. In the one case, a fixed salary may be attached to the professorship and to each of the lower grades of rank. Next, each grade may have a fixed minimum salary, with a system of automatic increase with length of service, and for no other cause. The third relation is the one generally prevalent; the salaries in any grade are not definitely fixed, and increase of salary may be made at any time and for many reasons other than those connected with length of tenure.

The first of these systems aims, so far as professors are concerned, to establish a republic of letters. It would develop a condition in which a man once chosen for a chair is responsible to no one but himself, and in which he neither expects promotion nor fears its failure, because his character and work are judged by no president, no committee and no executive board. The men in minor positions are professors in waiting, to receive recognition in case of vacancy or of departmental expansion.

¹ A paper read at the Cambridge meeting of the Association of American Universities, November 23, 1906. The paper was prepared by John Maxson Stillman, professor of chemistry in Stanford University.

These again are held on an equality pending the opportunity to rise to greater responsibilities and greater remuneration. The second system is a modification of the first, with the added recognition of the fact that, with university men, the expenses of living increase with the years. The third system considers the problem from the standpoint of the efficiency of the university organism and of the actual value of the professor to his students. In it, the element of competition appears, and the greater pecuniary reward goes with the greater academic service. The first and second systems imply a static organism, a university with its form and scope fixed once for all, and the professors as incumbents of established positions. The third system is dynamic. It implies the growth of the university organism, and the value of personality as a factor in different phases of growth.

Taking universities as they are, the institution is not a republic of letters on the one hand, as there are students as well as professors to be considered. On the other hand, it does not find its homologue in a great business enterprise. It is not alone what the members of the faculty do, but the ideals they represent, which is important.

In the practical discussion of the first and second of these systems, we may assume that if promotion is impossible or automatic within the grade, the promotion from one title to another is not likewise automatic. In such cases there would be no possibility of any discrimination between men of different value except by the difficult method of dismissal of such as fail to reach the plane of efficiency desired in the highest positions.

One of the most obvious arguments in favor of like remuneration for equal grades is that it relieves the university authorities from the difficulty of attempting

to assign different money values to services extremely difficult, even impossible, equitably to appraise. No university president and no board of trustees, nor indeed any other body of men, can have the intimate knowledge of the values of the services of men in a university faculty adequate for the establishment of just discriminations in salary on the basis of service rendered. Even if we assume such intimate knowledge, we are at once confronted with even greater difficulties of establishing the standards of judgment as to the value of these services. The elements entering into the value of a university teacher are many;—*e. g.*, originality, scholarly productivity, teaching capacity, industry, energy, personal influence, character, executive capacity. Different men place the emphasis very differently on the relative value of these different qualities, and agreement as to their relative importance is impossible. Such being the case, discriminations in salary between men of approximately equal standing can not be equitably administered.

When, therefore, it is attempted to establish such discrimination, there results dissatisfaction in the faculty. Faculty members criticize the discrimination in the light of their own knowledge of the men and their work and according to the emphasis they place upon their various qualifications. This engenders jealousies and gives rise to attempts to influence the president to recognize the claims of individuals, and cliques and factions are created. Stimulated by the uncertainties as well as by the possibilities of the shifting basis of salaries, political methods, personal influence, and 'wire-pulling' become prevalent. Discontent, lack of harmony among the faculty members, and between faculty and president, are the natural consequences. The president is charged with favoritism, and professors are accused of

exerting undue influence on behalf of their own interests or of the interests of their friends or favored subordinates. I have endeavored to present this argument strongly, and we must admit that there is justice in the objections to the attempt to estimate closely the values of men by difference in salary.

On the other hand, if we admit that harmony would be promoted to a certain extent by the same pay to men of the same title, we must consider at what cost this harmony must be secured.

The above argument depends for its validity upon the assumption that the pay is an important element in the ambition and desires of the university teacher. It would be strange if it were not. Uniformity in pay, if it is to be a satisfactory condition, assumes at least approximate equality of value to the university. It is very evident that no such condition exists in any university faculty. In any faculty there are wide differences in the value of different men to the university, whatever criteria of value may be assumed. It is neither fair nor just to expect men of exceptional value to be satisfied with salaries paid to men of distinctly inferior academic value. There is injustice in not recognizing increasing influence, scholarship and general usefulness by commensurate increase in salary. Nor should it be necessary to pay men of mediocre value the higher remuneration which is fairly deserved only by the strongest men.

If it be argued that none but men of approximately the same ability and value should hold the same rank, it can be asserted that such a condition is practically unrealizable, as may be easily verified by considering any given faculty. It is a matter of greater difficulty for a president and trustees infallibly to select the strongest men only for professors, than it is to properly appraise their services when

in the university service. Appointees do not and can not equally fulfill the hopes and expectations under which they were appointed, but once appointed they can not be summarily dismissed to make place for greater men, so long as with a fair degree of scholarship, industry and devotion they pursue their career; but there is no justice in paying such men the same as ought to be paid to those who are of distinctly higher value to the university and to scholarship. Furthermore, when a man by reason of merit attains a full professorship early in life, if he feels that thereafter with moderate attention to duty his salary is assured without hope of increase on the basis of value rendered, an important incentive is lost to him for his future progress and development. He is deprived of a stimulus to activity and ambition not without its influence upon common human nature even in academic circles.

There is also the more utilitarian idea of supply and demand which must be taken into account. No university has unlimited means at its disposal, and the problem of administration is to perform the most effective service for education and the increase of knowledge with the means at its disposal. To fulfill its responsibilities to its students and the public, it must secure and hold the most efficient men possible. If the law of supply and demand sets unusually high the value of the good men in certain lines, or the value of exceptional men in any line, it then becomes the duty of the university to pay some men salaries which it can not afford to pay to all.

It may be claimed, on the other hand, that university teachers do not and ought not to enter the career for the commercial value of the position. The world offers other opportunities for those who seek large incomes, and the university teacher who is fitted for the work looks to enlarged oppor-

tunities for study, research, and to the love for his work as a teacher for the rewards of his success rather than to financial rewards. This is unquestionably true to some extent. Nevertheless, within the limits of salaries at present existing in the universities, the fact remains that university teachers are appreciative of and desirous of such increases in their remuneration as lie within the range of present possibilities in any university. Until the range of university salaries is distinctly higher than at present, university teachers will find that the minimum salaries paid in any institution are not so large but that they are compelled to deny themselves and their families many reasonable comforts and luxuries which are greatly desired by all people of similar culture and social status. And so long as this is true, the university must face the necessity of competing with the world outside for the services of thoroughly competent and ambitious men in many lines. For the less wealthy universities particularly, the competition for the best teachers would under a fixed salary scheme render it impossible for them to hold their strongest men, if to do so they were compelled to pay an equal salary to all holding the same title.

In consideration of all these factors in the problem, is it not probable that the gain of simplicity of administration and some measure of harmony in the faculty by the system of equal pay to equal rank would be made at too great an expense of efficiency?

We must not overlook the fact that if equal pay to equal rank were the rule, discriminations would still have to be made in the matter of promotions from one grade to the next. In promotions, not only the pecuniary consideration is concerned, but a public honor is conferred. Precisely the same variety of considerations enters into the qualifications for promotion as into

salary differences. The same lack of agreement as to what relative weight should be given to teaching power, productivity as a scholar, personal influence and character, etc., exists here, and the same possibilities of jealousies, suspicions of favoritism, 'wire-pulling' and personal influence. The writer is inclined **not to lay great emphasis** on the dangers of such influences as necessarily incident to either system under discussion.

Wherever discriminations have to be made into which enter estimates of the relative values of such services, whether by differences in pay within the same grade or by promotion, there is bound to be some dissatisfaction and discontent. A just and wise administration will reduce these evils to a minimum by inspiring the faculty generally with confidence in the fairness and general good judgment with which such discriminations are made. Entirely eliminated, dissatisfaction and discontent can never be. At best they can be confined to those members who differ with the constituted authorities as to the relative value of their services, and, perhaps, to their particular friends. Under either system these administrative difficulties will exist and remain the same in character though differing possibly somewhat in degree. These difficulties will be lessened to a great extent by avoiding the making of small differences in pay between men of the same rank. For while the reasons may be readily apparent to the university community why a considerably larger salary must be paid to certain individuals, it will be much more difficult to justify small differences in salary to men of the same rank. For small differences in general usefulness or value to the university it will be admitted are not possible of fair estimation. They are not justified either on theoretical or on economic grounds. They tend toward discontent and irritation without material

saving to the university treasury, and they can not command the general approval of the university public. When certain men stand out so prominently as to deserve to be recognized by the authorities by a larger reward than their associates, the university community generally recognizes the fact, but the reasons for such recognition should be such as to be clearly recognized. Where, however, such is not the case, then equal pay to equal rank is the safer and fairer basis. The practical working out of the salary problem to my mind should be on some such lines as the following:

Each grade or title should have a minimum salary pertaining to it. This salary should be large enough to insure comfortable living with due regard for the reasonable demands of cultured taste. Much discontent arises because the minimum salary of the various grades is often so low that men can not live as the requirements of their profession and social status demand. This inadequate minimum compels the authorities to make advances of salary to meet personal necessities, which are not always justifiable on the grounds of relatively greater service rendered. Appointments to the lower ranks should be probationary and the university should be considered perfectly free to terminate such positions, to continue them, or to promote to a higher grade in due time. Within each grade certain allowances of increase in pay should be made for length of satisfactory service. Above these minimum salaries there should be the power to advance the salary of any man when it is clearly for the interest of the efficiency of university work to do so. Generally speaking, the maximum salary of one grade should be less than the minimum of the grade above, though even here it is imaginable that a departure occasionally from this rule might become a justifiable exception. In each grade the authorities should have the op-

tion of leaving a particular teacher undisturbed at the minimum of his grade and time of service, or of advancing him in recognition of extraordinary ability or unusually valuable service. They must also have the option of promoting or of passing by any individual, according to his deserts or the university's needs. In the lower grades, below that of professor, while the deserving character of a member must be considered, it must also be kept in mind that the scope of the university work and the financial limits of the university may prohibit promotions even when fairly deserved. Even very good men must often look abroad for their promotions. In the higher grades it is assumed that permanency of position is reasonably assured, and this should guarantee the minimum salary of the grade and time of service without any presumption of further increase unless fairly won by unusual distinction and recognition; but the university should then be free to recognize such service freely, both for the encouragement of scholarly ambition and to be able to retain its strongest men.

Briefly summarized, we may say that the maximum efficiency of the university work and a minimum of administrative difficulty resulting from inequalities in pay in the same grade, will be attained by a minimum or normal salary for each grade large enough so that men of reasonable desires may live and do their work and maintain their families without worry and discomfort; by reasonable increases dependent upon length of efficient service, and with freedom to recognize unusual ability or distinguished service as the requirements of the case may demand. Such recognition, however, should be made for reasons, the reasonableness of which should appeal to the university faculty generally.

Upon the assignment of this topic to Stanford University, President Jordan is-

sued a circular letter to many presidents and faculty members asking their opinions upon the question involved. At the time of writing some hundred answers have been received. The limits of time prevent the writer from obtaining permission to quote over their signatures the many interesting answers. I append, however, quotations from some of them that are typical of certain classes of answers and which will supplement the above brief discussion. Of sixteen college or university presidents, fourteen are opposed to equal pay for equal rank, one in favor, and one answer not decisive. Of eighty-one faculty members, sixty are opposed, seventeen in favor, four gave no decisive answer. Some thirty-three emphasize the value of an established minimum for each grade, increases above which may be made for good reasons, as length of efficient service, unusual ability or general usefulness.

JOHN MAXSON STILLMAN

STANFORD UNIVERSITY

The following quotations are from presidents of universities:

1.

I am firmly of the belief that there should be no rigid salaries payable to all men in the university bearing the same title. In other words, I believe that the university should pay what it thinks a man is worth. If a certain department is in need of a very eminent man, it would be wise for it to pay him double the salary ordinarily given. I believe that the principle should be variation, according to ability and experience, and quality of usefulness to the institution at any given time.

2.

In my judgment, while the salaries of professors in any institution will naturally gravitate toward some given figure, I see no reason why there should not be deviations therefrom, due to the greater value to the university of some men over others or the need of larger compensation to retain such men in the service of the university. In the case of assistant professors and instructors, who are appointed for a fixed period

of time, I see little, if any, objection to uniformity of salary.

3.

Sitting in an easy chair, one can argue one's way with perfect satisfaction to one's self up to the conclusion that all men having the same title should have the same salary; but I have never been able to manage a university on that principle, and I have never been able to acquire such ability. Extraordinary things are always coming in to interrupt in the application of the theory. We have here assistants, instructors, assistant professors, professors, head professors, deans, president. Some of the instructors get as large salaries as some of the assistant professors; some of the assistant professors get as large salaries as some full professors. Where action is in our hands, we prefer, within reasonable limits, to increase salaries rather than titles. Sometimes, however, a man insists upon an increase of his title, and to refuse him means to lose him whenever a good offer comes from another institution. Sometimes it is possible to increase a title and to promise the increase of salary on and after a certain date when additional money is expected. Some men insist upon increase of salary more than upon increase of title, and *vice versa*. Sometimes you must increase the salary and title both.

I need not point out that the case does not occur in which an assistant gets as much salary as an assistant professor; nor a case in which an instructor gets as much salary as a full professor; but instructors and assistant professors do run together sometimes in respect to salaries; and so also assistant professors and professors in some instances.

4.

I beg leave to say, 'No.' The reason of the answer seems to me to be summed up comprehensively in the remark that men, even college professors, differ in character and efficiency. Therefore, the pecuniary recognition may fittingly vary according to their work and worth.

The individual and not the institutional method should prevail. It is much easier to administer a college on the basis of the same compensation for men of the same professorial grade; but I believe that such administration is not wise either for the individual or for the institution itself in large relations, or fitted to promote the higher interests of the whole community.

5.

I know of no solution of this problem which seems to me entirely satisfactory.

There are those who think that a fixed system or scale of some sort should be adopted and followed. That would be the easiest plan for the trustees and the president. Perhaps it is the right plan. But after the most careful consideration it does not seem so to me. I do not find any institution such as ours where any fixed system has been found practicable, though various systems have been given trial.

A fixed system of promotions and salaries is said to work well in the army—in time of peace. In time of war it is in the army as in all other callings—the system must go to make way for the most efficient service.

Aside from the differences between men, which count in every occupation and must count among teachers as well as others, there are circumstances and conditions which vary from department to department and render a fixed system a heavy handicap upon the maximum efficiency of the university.

The university can not, for example, make nothing of the fact that it is very much more difficult to get good men in certain departments than in others. This fact constitutes part of the reason for one exceptional recommendation made at this time. In such cases the university can not afford to restrict itself artificially by a system.

On the other hand the conditions and circumstances in another department may make it extremely difficult to promote every worthy man. The commonest example, in the universities generally, is that of the department whose places are already filled by a practically permanent staff of good men. If one looks at the case of a single individual, relief seems easy. But some one must look at all the individuals. Some one must look at the budget for the year. Some one must consider what the budget will be next year and in the following years when outgoes are growing and incomes are standing still. In a word some one must consider the life of the university as a whole. When one does that, the problem of advancing all the individuals who deserve it appears not simply difficult but impossible. No university is rich enough to make places and salaries for all who deserve them. No university has a right to make place or salary for any man unless this is justified by the interests of the institution.

In fine, an automatic system is easy and peaceful. It relieves the trustees and the president from their most trying responsibility. But in my judgment it must again and again pay for

this peace and pleasant irresponsibility by the sacrifice of essential university interests.

I believe that the trustees and the president must choose a harder and more troubled course. They must accept the responsibility of doing what they believe to be best and must abide the consequences to themselves and to the university.

I do not forget, as I write, the first-rate importance of a good spirit within the faculty. The maintenance of that spirit requires that the administration of affairs should be reasonable and disinterested. But if a reasonable and disinterested administration (which must often bring disappointments to individuals and which must sometimes make mistakes) does not develop a good spirit within the faculty, the whole problem seems to be hopeless.

6.

While there are diplomatic reasons for giving the same salary to men holding the same title in a college, there is no justice in it, as it is impossible to secure men of equal effectiveness in their respective positions. The question of administration is doubtless easier if professors are placed on equal salary, but there seems no sufficient reason to my mind why the laws of supply and demand should not be applied to college professors as well as in other walks of life.

7.

There is no reason why the same salary should be paid to men bearing the same academic title in other than the subordinate grades, such as assistant, tutor and instructor. I think that assistant or adjunct professors, and more particularly professors, should be compensated as individuals and not as members of a group, the amount of compensation to vary in accordance with particular circumstances affecting the nature, the quality, and the amount of their academic service.

The following quotations are from faculty members:

8.

For a categorical answer to the question I should say, *no*.

The dilemma which the question involves is in some respects similar to that which appears in the question of salaries for public school teachers, and is somewhat more remotely analogous to that which appears in the whole problem of appointment, promotion and salaries in the civil service. On the one hand, a mechanical uniformity is easy of administration and shuts out

the dangers of favoritism, wire pulling and the whole set of evils that are commonly described as political. On the other hand, such a system makes it impossible to adjust the external rewards of service to differences of experience, capacity and life-needs among those to whom the schedule of salaries applies. It may be taken for granted that there will be an upper limit of salary which will be low enough to prevent the position of instructor from becoming an object of covetous competition, and there will be also a lower limit which is not too low to enable a self-respecting man to live respectably. I can well understand that even within these limits there is danger to the scientific and spiritual interests of a university in a sliding scale which may seem to emphasize purely what may be called the market value of a man; but it should be remembered, on the other side, that a thousand differences of personal and family need, of general make-up and disposition, not seriously affecting a man's scholastic efficiency, and other differences too numerous to mention, are present and must be considered and ought to be considered when a man in a given institution is offered a higher salary in another institution, or in some other occupation for which his talents may fit him. Without entering into any unseemly competition on purely financial grounds, an institution may consider, and I think ought to consider, such differences, in adjusting the salaries of instructors within such limits as are suggested above.

There is not much danger that an instructor will work for money chiefly, or will get rich even if he does, but even in a university a man who renders services of extraordinary value should have a fair opportunity of receiving a larger income than another instructor of the same scholastic grade whose services are notably inferior to his. The difference in salary will not pay for the difference in service and can not be made to pay for it; but it may render the more useful man a little more free to make the most of his useful life by travel, by acquisition of the means of culture and research, and by the various other ways which are within the purchasing power of money; and it may render him better able to help his family and friends and those who have a right to look to him for help.

9.

1. I do not think that 'the same salary should be paid to men bearing the same title.' But this under the following provisos:

2. There should be a minimum salary for each

rank, no less than which each appointee should receive upon his advancement to the rank.

3. There should also be a maximum salary for each rank, attainable by those members of the rank whose abilities and performance show that they deserve it.

4. Promotions within each rank should be upon proved merit, judged in the light of the quality of departmental work, and without reference to 'university politics,' or 'work' in the manipulation of committees—in short, the study or the courting of 'influence,' whether with authorities or with students. The rate, or rapidity, of promotion should correspond to the proved value of research and teaching service.

5. Advances in salary, as in rank, should be made in sole conformity with the advice of the president, and this advice should result from consultation with the department-head under whom the candidate serves, and should, unless there is clear adverse reason, follow the head's advice.

10.

My feeling is decidedly in favor of *equal* salaries, as tending to greater unanimity of feeling among professors, and so to greater loyalty to the university. Equal salaries seem to eliminate, so far as possible, the whole element of *favor*—the *personal* equation—and this sets every one free to do his best, according to his light, for the university. Equality, too, removes the possibility of bargaining, of jewing up or jewing down a salary, according to the exigencies of the moment. This policy, too, seems to me to be, in the long run, the more dignified for the university. A man comes to it, not because he is bought at a high price, but because the university as a whole suits him. He takes his place in the equal brotherhood of professors, feeling that his fortunes are bound up with theirs, and so with the fortunes of the whole university. * * *

Of course equality of salaries will occasionally prevent a university from securing an able man who might have been secured by 'subsidizing' him—and it will result in some men being paid more, and some less, than the market will bear. * * *

Of course this preference for equality does not preclude an advance for years of service, so long as the advance, as at Harvard, is automatic, so to speak, and not a thing to be bargained for, or begged for. (I have heard of one interior university where advance of salary must even be 'toadied' for.) * * *

And yet in the long run I am convinced that

equality of salaries tends to contentment, to fraternity of feeling, to loyalty, and to the minimizing of the force of the mercantile spirit in a faculty. * * *

My argument is intended to apply chiefly to full professors, the 'peers of the realm.' There is no objection to a money stimulus to the men who are still on probation, with their spurs to win.

11.

1. It is necessary, in my opinion, to separate the college of arts and sciences from the technical colleges in the discussion.

2. If there were sufficient men who were *called* to teach in the sense that the old apostles were called for their work, then I believe that there would be no question of diversity of salary. All that would be needed would be barely enough to keep soul and body together.

3. While there are plenty who would like the call of a university there are not enough with 'the call' to fill college positions. This puts the colleges in the field of competition with the practical world for the all-round, capable and forceful men who are not satisfied, on the one hand, with the dead level of communism or, on the other, with things as they are and have been. Progress and experiment to attain that progress is their motto. Now to get these men to put their courage and force to the service of a college, the college must offer them something like the chance they would have in the great world, that is, a chance to receive the reward to which their force and courage entitle them.

4. To obtain the men with the force and courage which shall make the university a real and living part of the civilization of the time, the university must—in a measure at least—appreciate the reward which is offered by the world for the kind of service it desires. There is no doubt that money at the present time is taken as the measuring stick of men. Money certainly makes it possible for men to attain much which is most desired by them and their families.

After men have once caught the divine fire which comes to the college teacher, money questions would not so much affect them; what I am contending for is that the university get the forceful characters into its faculty by offering rewards which will attract them. It can not afford to be manned by those who can not get a living so easily any other way.

5. *Technical Schools.*—The same general statements may be made as with reference to the college of arts, but here the university comes into

more direct competition with the practical world. If the technical school is to be an integral part in directing the progress of the civilization of our time the men who form its faculties must be among the chosen—men with strong character, clear heads and the courage and foresight to make the necessary advances. Then the schools could hope to be leaders instead of mere trailers.

Now to get a sprinkling at least of the real leaders there must be provision in both salary and rank. And the salary in the technical school must average considerably higher than in the college of arts.

6. Just the method to pursue to attract into the teaching profession the all-round, forceful men so much needed in colleges may perhaps be answered by creating special positions with corresponding salary—such as head professor, dean, director, etc. This might leave the rank and file in a group with uniform salary and therefore without one element of discord.

7. In closing then I would say that in the modern university there must be diversity of salary and rank in each college and a distinction between the college of arts and the technical schools.

While it may not be germane, I would like to put in a plea for appreciation of the teacher who is really *called*. He, after all, is as much needed as the one who can do magnificently anything he puts his brain and hand to. Money is usually much less prized by him than opportunity for study, for investigation in his chosen field.

12.

Apparently it is not practicable to pay the same salary to all men holding the same rank in a faculty, and yet a wide departure from this policy seems to work great injustice in many cases. I once believed that a university president should be free to pay whatever salaries he found necessary to secure the men he wanted, and that salaries within the faculty should be based entirely upon efficiency. I have now come to regard the other extreme, with an absolutely fixed scale, as preferable to this method.

No man is omniscient, nor can any man know with a higher degree of approximation the relative efficiencies of the men in a moderately large faculty. Even the men in the same department or in closely related departments differ widely in their estimates of any particular man. One lays the stress on one qualification and one on another. Hence, while no individual is competent to pass upon the salary scale of a whole

faculty, no group of men will come to any agreement upon such a scale.

Most men are so constituted that their opinion of the qualifications of others depends largely upon their personal likes and dislikes (I know that I am personally very strongly influenced by such considerations), others are so constituted that they yield to persistent pressure on the part of one who is working for an increase of salary, and still others may be influenced by the cliques which are always formed in a faculty for the purpose of boosting their members. Hence, whenever a man receives a higher salary than others whom the general consensus of opinion would rank in the same class, there are apt to be charges of favoritism or 'pull.' In this way, the influence of the president who has the fixing of salaries is bound to be greatly weakened. * * *

Again, assuming that a man of absolutely impartial mind and of wide information could be given the authority to fix salaries, there is no general agreement as to the grounds upon which distinctions should be based. One man is an excellent teacher and exerts a great influence upon the lives of his students; another is a great investigator and does not know the names of his students. Which should receive the greater salary? Most men are neither great teachers nor great investigators, but one excels in some particular and another in something else. How shall we say which is entitled to the greater salary?

I am aware that absolute uniformity is impossible, even if it were desirable. Certain departments are compelled to pay more for men of equal ability and preparation than other departments. At any one time, there are living in the world only a few first-class men in any profession and a university which is able to afford the luxury of such a man should be compelled to pay for it. However, the total number of such men in the world is not large enough to make it necessary to take them into consideration in deciding upon the general policy of a university. So I believe that university salaries should, as far as possible, be fixed upon an arbitrary basis, taking into consideration the rank and time of service of the men, and that departures from this fixed scale should be made only for weighty reasons, reasons which would be recognized by the faculty as a whole.

13.

I may now say very briefly that I think university teachers of the same title should not receive the same remuneration. With such a plan

I believe we would have too serious an interference with the great law of supply and demand. In our academic guild there are already too many impediments to the free working of the law of the 'struggle for existence and the survival of the fittest.' The principle of the 'redemption of the unfit,' which our too pious altruistic brethren are introducing as a counter law to the law of evolution, is being overworked in these times.

Everywhere in life, a man should be paid what he is worth. I know that many of my colleagues say that this would introduce commercialism into university life. It is often said that university men can not do their best work if they have to be continually thinking about their salaries. This is in one sense profoundly true, but I believe that it is often the argument under which idlers take refuge.

14.

Fundamentally, a sharp distinction must be recognized between the academic and the administrative requirements of the institution. This underlies the question at issue. The university is required to exist in a commercial world, and meet financial conditions on a commercial basis, while, at the same time, it must meet its obligations to the ideals for which it stands. The university thus is forced to maintain its standards at variant costs, and direct its progress by paying prices that it does not itself control, when they are disproportionate to the true academic returns. This is because of the outside standards of value, which do not accord with the necessary ones within. The discrepancy holds true for every item of expenditure, and among the other items are included the salaries.

There then arise two classes of considerations for which salaries are paid. One is that for services which perhaps have little or no commercial value, rendered by persons who are thoroughly dependent upon college interests and college standards. The other is for services purposely attracted away from commercial competition by liberal payment. The two classes, or purposes, are separate and must be regarded separately; for they are made necessary by different causes, they administer to different needs, and they bring about different results. One is strictly academic, and the other is thoroughly commercial; and each is a factor in practically every salary.

The true academic purpose is steady, continuous, uninfluenced directly by commercial considerations, and ultimately is desirable. Such services are easy to grade. Salary in that case

conforms closely to title; and acting with title it becomes an expression of university approval and merit.

Commercial considerations, however, can not be bounded so. The commercial purpose is fluctuating, insincere in the college field, and rests upon a commercial basis and outside standards. It is always subject to influence acting on the outside, and these break into any desirable order of things within.

Therefore, when necessary, commercial influences should be met according to their demands, not restricting or limiting the power of the university to do this, but observing its best interests while protecting its standards. The salary is the means that makes the fulfilment in that case possible and is the only compensation the college can afford to offer commercialism. It could be shown, on the whole, to be unwise for a university to go far into extreme commercial competition for men, and deal in such commercial margins upon men as have accrued from popularity, or from success in some one line of commercial activity.

Thus salary, in part, must be held under a commercial standard, while title always must be considered under an academic one. The two standards do not conform, and no effort could draw them naturally together in defiance of commercial law and custom. A uniform scale of salaries, graded according to title, or defined by the title, is an ideal to be approached as closely as outside conditions will permit. Such uniformity, however, is not sufficiently supple for working purposes; and for practical reasons, the best results are obtained by a moderate departure from it in different ways, limited not by defined bounds, but by conservative administration, retaining always the ideal in view.

15.

Let me say in answer to both questions that I think the same salary should not be paid to men bearing the same title. There should be an identical minimum salary to be paid to all men bearing the same title with such additions in individual cases as the university may deem wise, in order to recognize the moderate natural increase, up to a certain limit, which ought to be given to all members of the faculty who do faithful service, and the exceptional increase which ought to be granted to men of exceptional value.

16.

The question strikes me as scholastic.

University organization can not be modeled

upon the army. The best interest of university service prohibits that it should be enterable only at the bottom. University professorships high and low should be open to competition. Professors do not need the shelter of benevolence nor to be entrenched behind the contract esteem of benefactors. Universities should be free to get the best men their resources will command. Hence no rigid connection between title and salary roll is advisable.

17.

I beg to offer as my opinion:

That the same salary should not be paid to men bearing the same title. I feel that in the lower grades of the instructing force different sums should be paid, according to the character and amount of work. In the grades of instructors, assistant professors and associate professors I think there should be a minimum and a maximum limit—that in general, advancements or appointments should be made at the minimum figure, and there should be a regular automatic increase in those salaries until the maximum limit is reached; then it may be desirable to retain the person at that salary either permanently or for some time, until he has shown his qualifications to be raised to the next grade.

When it comes to the full professorships, I think again there should be a minimum salary, and that the advancement to what might be termed the 'regular' salary of full professor should be, as in the lower grades, automatic and regular; that above the regular salary there should be exceptions made upon the sole consideration of the value of the individual to the university. That means discrimination, and I believe in discriminating between the good, the mediocre, and the bad.

18.

It seems to me the fairest method is that a certain minimum salary should be attached to each title and that the appointment to such a place would necessarily carry with it this minimum salary, but there should be possibilities of individual increase over this minimum. The factors which should determine this differential are various. The success of the professor in his particular field, either as a teacher or as an investigator, or as a leader of public thought, or interest in university activities should be followed by some recognition in the way of increased salary. I am afraid that, if promotion were simply a matter of time or routine, there would be a distinct lowering of effectual effort for ad-

vance. The more highly one prizes an academic grade, the greater should be the possibilities of this differentiation.

While academic life is not strictly comparative with business life, they should have certain analogous elements. It is easy to get one-thousand-dollar men in business, much more difficult to get five-thousand-dollar men, and almost impossible to get ten-thousand-dollar men, but a ten-thousand-dollar man is worthy of his hire. So in the university, the ten-thousand-dollar man should have his corresponding reward. Of course, the elements which make for success in an academic career are not the same as in a business career. The standards are different, the aim is different, but what I want to bring out is that the value of men is so different that they can not be fairly classified by the ordinary academic grades, and, while in the university the money reward is not the sole object of the professor's work, it should form a certain element of it.

19.

In my opinion professorships within the same university should unquestionably be placed upon a like financial basis.

I find the most emphatic argument for this in the evils that almost inevitably accompany any other disposition. Those evils, indeed, seem to me a most serious menace to the amelioration—so much needed—of the professor's standing. In the absence of such a system or practise, the individual professor is likely to spend serious efforts in enforcing his claims to securing such advances in salary as he can effect. Most directly and most frequently he encourages offers of affiliation with other institutions. He particularly suggests, when such inquiries come, the necessity of additional financial inducements to secure his transfer; at other times the university aspiring to secure his services at once holds out the lure of additional income. If he accepts such an offer, he is likely to find in the new environment that he has been engaged at a salary denied to many of his colleagues of longer service, of greater adaptation to the needs of that institution, of equal reputation and attainments. Such a position should be more generally embarrassing than it seems to be. If he declines the overture, he is likely to yield to the temptation to demand of his present authorities that they compensate him for the loss he has incurred by declining the 'call.' The commercial standards that thus enter degrade the proper appreciation of academic standards and prevent the emphasis

upon the essential factors of academic compensation. There are to-day many men of first-rate character and value receiving most inadequate salaries, while in the same faculty are a few men with far better incomes whose greater freedom from care is due merely to the fact that they entered the institution at a later period of its history and have not to their credit years of self-sacrificing service. Such a university actually punishes those who have aided to build it up. It may be replied that this difficulty could be avoided by increasing salaries from within as generally as from without. I reply that the spirit of this method is against such procedure; and that a complete adjustment would amount to nothing less than an equality of salary.

I shall say little of the feeling of personal injustice, of jealousies small and great, proper and improper, that arise under the system that allows each man to fight for himself alone. I mention the fact that, struggle against it as we will, men will be rated by the salaries they receive. Academic democracy is hampered in its expression, and men are judged by false standards. It is but an exaggerated expression of this attitude—something that hangs in the air and contaminates—that induced more than one graduate student in a certain but nameless institution to look up in the proper report the salaries of the several professors under whom study was contemplated, and to choose those with the largest figures to their credit. They wanted their 'majors' only under at least '\$3,000' men. This is the rating that figures in the Sunday issues of our great and representative dailies.

The fact that the only practicable mode of avoiding the inevitable difficulties, injustices, inequalities, and pernicious influences of a system that leads each man to struggle for himself, is to adopt the system of equality: this alone seems to me an adequate reason for the system I advocate. Yet it seems to me that equally with the avoidance of evils is there in the 'equality' system the greatest good, alike in principle and in practise. The very freedom from care and unrest and uncertainty, and the consequent emphasis placed upon the incumbent's devoting himself to his proper interests, is a great step in itself. Nor can I see why any president or board should desire to complicate matters by attempting to differentiate among equally, or nearly equally, worthy men by a financial standard. It is sometimes said that the business of a president or of a board is to translate academic utility into money values, a task for which a composite of

Solomon, Job and Socrates would be inadequate. The thing is an obvious impossibility, and, as said before, a crude attempt to force the distinction places a most undesirable emphasis upon a distinction that fundamentally has no place in the academic life. The very fact that a president is willing to prove to his board that Professor A. is worth \$2,600 to the university, while Professor B. is worth \$2,700, seems to suggest rather forcibly that the result might better be left to the throw of a die.

We must also remember that under present circumstances these discriminations may mean all the vital difference between finding a debit or a credit in the year's accounting. If professors were paid upon an adequate basis, the problem would shift in importance, though the relative value of principle would be the same. A salary should secure a reasonable, comfortable living. The salary is intended to permit one to live and pay one's bills; those bills are largely determined by the standard of living. The butcher and the baker—unlike the graduate student—do not consult the salary list before making out their bills. These come in to the fortunate and the unfortunate alike.

Nor can I see any useful purpose that a differentiation of salary serves. I have never heard any defence thereof that at all aims to set forth its utility. It is generally set forth as a practical necessity. A certain man can be had only by offering him a certain salary. Trustees are influenced by these superficially business-like considerations; and so the specious argument with its attendant evils returns and grows in force. Yet in the long run, the university that strains its maximum efforts to pay adequate salaries will reap the benefits of its worthier policy. Indeed that is the case to-day. To anticipate the occasion of a summons elsewhere, to place the emphasis upon academic privileges, to make it clear that the best the university can do is already done, and is not withheld until a 'hold-up' forces the situation, is more likely to attract and retain the proper kind of man than any shrewd juggling with the translation of academic deserts into dollars and cents.

I do not address myself to the practical problem—related yet different—of providing a system for the proper advancement of men from subordinate to the higher positions. I believe the issue in such cases is properly that of determining by academic standards when and whether the candidate is to be advanced to a higher rank. Some should be advanced more rapidly than

others. Such differentiation is part of the selection that is as necessary in the academic as in any other career. But once selected, the further differentiation of salary should be affected by no other consideration than time of service, and such other regularly provided conditions as belong to every man's career.

20.

As an ideal, the payment of uniform salaries to all who may bear the same title would seem highly desirable, inasmuch as it would in effect recognize the equal value or importance of one department with another.

As a matter of practical university administration, it will always be difficult to realize any such ideal, and chiefly for these reasons:

1. While all professors should be equally eminent in their respective professions, such will not be the case in any actual faculty. Certain individuals may tend to stagnate, others to draw forward and in various ways differences are sure to exist.

2. As a result of these differences, either in professional or in collateral qualifications, it will result that in a real sense, certain individuals may become of more value than others, no matter on what basis 'value' may be estimated. Such differences may not improperly be made the basis of a difference in salary.

3. Due to one cause or another, the services of different members of the same grade of the teaching staff may have different market values. Certain individuals may be more or less prominently before the public, or may receive calls from other institutions, and if it is desired to retain their services, an advance in salary must be made.

* * *

To summarize: if universities could be provided with ideal faculties and administered under ideal conditions, doubtless equality of salary in the same grade should and would prevail. Under actual conditions and as a practical administrative problem it does not seem likely that it ever will.

21.

I am strongly inclined to think that men bearing the same title in a given institution should receive the same salary, or what would be better, if practicable, that there should be a fixed scale of advancement by years so that new appointees could start in at the bottom of the scale and receive a regular increase of salary until a certain maximum is reached. It might be necessary to recognize services in other institutions at similar grade in adjusting the pay of men changing

from one full professorship to another. To give satisfaction such a sliding scale would have to be administered uniformly and the practise of withholding the expected advance in some cases and in making it in others strictly debarred, otherwise members of a faculty would feel themselves perpetually under trial and while this might stimulate a certain feverish activity, it would not promote the efficiency of the body as a whole. I believe that the healthiest system and the one which would lead to the finest *esprit de corps* to be that of uniformity of pay; the salary in the case of each institution to be of public knowledge. A sliding scale of annual increase which could be relied upon would be satisfactory to the younger members of the staff and peculiarly advantageous to those who remain in service for a long period of years.

Such a system would do away altogether with the present very objectionable practise of trying to obtain offers from other institutions, not for the purpose of accepting the same, but to force an increase of salary in the position which one already holds. At present this is in many institutions the only successful way of improving one's condition as regards pay.

Such a system as that outlined, however, should be so arranged as not to altogether discourage migration; for, aside from mere monetary considerations, it is doubtless better for the universities and their professors to have a certain reasonable amount of change of personnel, on the one hand, and of environment, on the other.

It might possibly be found necessary to pay higher salaries in departments which come into touch with practical life, such as the chairs in engineering, architecture, medicine and law, than in the case of purely academic positions, because of the demand outside of the universities for men fitted to fill these positions, but such a distinction is unfortunate and should be avoided if possible. If a man conversant with practical affairs selects a university career he does so necessarily at a pecuniary sacrifice and it is perhaps not too much to ask him to be content with the same pay as his colleagues in other departments.

22.

As regards instructors in different schools, or perhaps even in different departments of the same school, some variation seems necessary. Experts in law, medicine or engineering, even though of no greater relative prominence in their specialties than teachers in the so-called academic departments of the university, must ordinarily be

paid higher salaries than other teachers, simply because a sufficient number of first-class men can not be gotten away from the competition of active practice in these subjects for salaries that will procure good teachers in the academic departments; otherwise, indeed, a university proposes to pay the academic teachers on the basis necessary for the professional ones, which is not likely to be the case. I assume, therefore, that the practical question for discussion is whether there should be variations in the salaries paid to men of the same rank in the same school or similar departments. Ordinarily, I should think it preferable to pay the same salary to men bearing the same title and doing work similar in amount and general character. Where a university's funds are reasonably adequate to the work it is attempting to do, this seems the best way of preventing jealousies and dissatisfactions which are very natural where there are marked distinctions in salary among men of the same rank. At least this is true among professors and associate professors, though the reasons for it are not nearly so strong in the case of temporary appointees like instructors and assistant professors. A variation of salary within certain limits may here often be proper and useful in enabling the university to retain a good man whom it can not immediately promote to the higher ranks. In any case, however, I should think it proper for a university in rare instances to pay special salaries to men of extraordinary abilities. The salary of a professor is not large at best, and a university teacher with an opportunity to earn a much larger sum outside of the university might occasionally have duties that he felt obliged to discharge which necessitated a larger income. If his value to the university were very great, I should think it proper for the university to retain him by special arrangement, but such cases would be very few in number.

Institutions whose income does not enable them to employ the usual number of full professors at salaries paid for good men by the larger universities must necessarily choose between having all the men in a department below the first rank, or trying to have at least one first-rate man in each department who shall be paid a substantially higher salary than the others. I should think it better for an institution to pursue the latter policy; but it would be difficult for such an institution to retain its better men, even of the second grade, if it never advanced any of them to the rank of professor except the heads of departments. The title of professor is looked upon

by a considerable number of excellent men as a substantial promotion even though unaccompanied by much increase in salary; and I should think it proper for a university with a moderate income to act upon this known fact of human nature. I am pretty sure it would be able to retain better teachers, in the long run, this way, and that is the principal object to be gained by salary rules. Perhaps even such a variation as that just suggested could be made the subject of regulation by constituting heads of departments a higher class than full professors.

23.

As there are many different degrees of worth, or value to the university, among the men of its faculty, and as but a limited number of these degrees is represented in the usual scale of titles composing the faculty organization, I should say, decidedly, that the same salary should not necessarily be paid to men bearing the same title. The differences in salary should correspond as nearly as possible and expedient to the differences in degree of worth of the men to the university. The factors determining this worth are several and various. Some of them appeal primarily to our ideal professional qualifications; others appeal more to our recognition of the practical necessities of university administration. Theoretically, the ideal qualifications should be the preferred and most rewarded ones: actually both categories of qualifications must be taken into account. But there is no scale of degrees of worth determined either on the basis of ideal qualifications alone, practical necessities alone or (as is inevitably the real basis) of a combination of these two, that does not include in its series more degrees of gradations of importance than are represented by the conventional scale of faculty titles or positions. These degrees should be recognized and rewarded by differences in salary, even though they can not be by differences in title.

24.

I believe there should be a minimum standard of salary for a given title, but that the maximum should be varied to suit the class of men engaged in such work. *Many valuable men deserve an advance in salary before they deserve promotion in rank*; in fact, some exceedingly helpful men may never deserve a high rank as to title, but become increasingly useful as members of the teaching faculty. It is my feeling that a professorship should not be awarded simply and solely because of scholarly attainments or ability

as an investigator; the title has a greater content than these qualifications imply.

Under the present economic condition the salaries now being offered to college workers are so meager as to offer no incentive to young men of ability to enter the profession. Of course, many young men of ability are entering it, but they are doing so with no hope of any financial reward and many of them are not conscious of the difficulties that await them. It is easy to say that the best men are willing to make sacrifices, but it is not so easy to see that the sacrifices which they are called upon to make are many times serious detriments to their advancement. For example, comparatively few men in college work, relying wholly on their salaries, can afford to hire a stenographer or reader to do certain amounts of detailed and more or less mechanical work. This is not as it should be. Much more time could be given to investigation, and they would have more desire to investigate and devote their energies to essentials, if they could be relieved of the purely mechanical work. At present, as I say, relying wholly upon their salaries for support, this is practically impossible.

In conclusion: people of the country are, in general, of the opinion that college professors are poorly paid, hence there would be no serious objection on the part of the public to a change for the better.

25.

The titles do not represent ranks of men in military alignment, but a group of runners spaced out yonder on the track. Our hope is to space them out more widely still by evoking from each best one his utmost effort and speed. A prize—of some sort—is what human nature demands in all such cases. 'To him that hath shall be given' is never truer nor more just than here. Now the title itself is a prize. But the title of itself affords no further inducement to him who has already won it; and for those of the highest academic rank no further prize of that sort is possible. But this last is precisely the group that most needs such stimulus.

To rely upon the desire of fame alone to furnish the needed spur seems to me not quite all we may rightly do. Fame depends upon too many accidents, and generally comes too late to avail the individual for further effort. It seems, moreover, not quite fair that the world generally should be left to pay the debts of the university for exceptional service rendered first of all to the university itself. The evils which are feared in this connection—bitterness, jealousy and the

charge of favoritism—are already here, and will inevitably attend any attempt to recognize excellence. The way to deal with them is neither to efface distinctions already established, nor to refuse to carry them further as may be needed; but rather to make sure that every such recognition of excellence shall carry with it the conviction of its essential justice and desert. I see, therefore, no reason why the principle of special reward for special service, operative everywhere else, should be made inoperative within the charmed field of a certain academic rank. To make it so suggests at once the methods of the 'union,' and its results—loss of incentive towards excellence because mediocrity will answer just as well!

And I make no question of recognition of a pecuniary sort. Added pecuniary resource here is not so much *pay* as it is a necessary condition of further and continued effort; relieving the scholar's mind from carking cares, and his body from profitless fatigue, and setting free his energy to do its proper work. Nor should it be necessary for a man of proved value and ability to work for a position elsewhere, in order to come into the enjoyment of what he has deserved at home.

A graded use of salary during the two or three years of one's novitiate in the professorship—if the man has it in him to rise at all—seems almost the only proper thing—and works well in practise. The associate professorship seems not so distinctly to need an augmentation, since it should lead betimes to the next stage. But in the last stage the principle of recognition of exceptional quality, I think, should have large sway.

26.

In order to answer your question, two things must first be clear, viz.: (1) The basis on which salaries are fixed; (2) what is implied by the same title?

As to the first I may express the fairly obvious belief that salaries should be the pecuniary compensation for services rendered. In practise, however, the salary question is frequently complicated by the introduction of other matter. In fixing salaries the only condition should be 'value received.'

Assuming this, if the same title truly indicates equal usefulness among the men who hold it, I believe that equal salary, equal compensation, is both logical and just. But unless men equal in rank are also equal in usefulness, I do not see that equal compensation is justified.

I may therefore state my opinion regarding your question in these terms:

1st. Salaries should be compensation for services rendered;

2d. They should be fixed only according to services rendered;

3d. The salary of an individual should therefore be determined solely by his usefulness;

4th. Unequal usefulness of men in the same or in any rank should necessarily imply unequal salary.

27.

Equality of salaries would presuppose at least approximate equality in scholarship; but there are very few universities in this country that have reached that stage. In other cases a uniform salary scale would seriously hamper the appointing power in its efforts to secure good men, especially in universities that are at a disadvantage in consequence of their geographical location or for any other reason; unless indeed the salaries be placed at the maximum figure obtaining anywhere, and that is obviously impracticable.

28.

In general, I think that it is not just to pay the same salary to all bearing the same title. It seems to me that there are at least four reasonable grounds for such discrimination:

1. Relative success in teaching;

2. Relative success in research or in otherwise contributing to knowledge;

3. Various personal qualities not easily defined, but going to make up character and culture, and manifested in the teacher's influence for good on the student;

4. Length of experience. If the teacher does not grow, he should not remain in the university. If he does develop from year to year in such qualities as those referred to above, it is right that he should receive better pay.

I most emphatically do *not* believe in salary discrimination based on a 'commercial' valuation obtained from the demand for the teacher by other institutions—a condition which already exists to too large an extent. When the laws of supply and demand govern the salaries paid our teachers the influence of our universities for good must certainly suffer. We should see such results within the faculties as now exist on the campus—an able teacher of Latin, let us say, of high character and long training, and successful as a teacher, getting perhaps \$1,000 or \$1,200, while a recent graduate, of doubtful character,

can command \$5,000 for six weeks' work as football coach.

29.

I am distinctly of the opinion that we are too careful in differentiating officers of the university according to age and title rather than to ability, activity and general usefulness.

Universities are lax in encouraging young men to leave the university when they are not fitted, and at the same time American universities seem to be equally lax and short-sighted in disposing of older men who in their prime were a great help and honor to the university. The modern trust is much more humane in these matters and, it seems to me, takes better care of its good men.

Salaries should not be paid in amounts proportionate to arbitrary gradations of title. When a man has proved his usefulness to the university, the university should be willing to pay him any reasonable salary to retain his services.

30.

A member of a university faculty is likely to put more life into his work, if from time to time he should receive some definite recognition of excellence to which he may attain, whether in teaching, research, executive work, or length of honorable and efficient service. This recognition may come to him in a variety of ways, one of which is increased remuneration. It is desirable that such encouragement should be given him more often than he could be promoted from title to title, for a complex system of titles would be unwieldy. Therefore, a minimum and maximum salary should be established for each title, a man being advanced, now within his title, now from one title to another, as he shall merit.

In reading this President Jordan made the following comment:

I may add a word of my own to Professor Stillman's discussion of this topic.

The problem is rendered more complex through the existence of the assistant professor, on whom in great part the work of the American college now falls. Historically, the assistant professor is a recent development and his position has no analogue in the universities of England or Germany.

The fact that the American universities are teaching institutions, as distinguished from those whose primary function is that

of an examining board, has had a large influence in shaping our university organization.

In England and Germany, in general, there is an established standard of excellence of erudition or of culture to which the student aspires. In framing this standard, no consideration is paid to the powers or the tastes of the individual standard. It is a standard set by society or by academic tradition, and only in late years has the number of such ideals or goals of effort been multiplied.

In Europe generally, the professor teaches what he pleases, but the student uses what he teaches only as an aid to a predetermined end. The teachers of minor grade find their opportunity when the professor fails to make his work useful as a preparation for examinations. If a Privatdocent can make his work attractive and practical, the students will pay for it. Otherwise he may starve. The university has no responsibility for him, no interest in his fate. Neither does the university feel any obligation that the subjects demanded in examination shall be well taught to each individual candidate.

This is especially true of the older universities of England, and to this day the chief university function which is unquestioned is that of examining for degrees. One and all, they are primarily examining and not teaching universities.

In an examining institution, fees are charged. These fees mostly go to the professor, and very unequally, but that is his own concern. If he is interested in them, he should choose a remunerative field. The professor needs only assistants of an inferior order. These he may pay himself, and their status does not concern the university. If professor and assistants fail to cover the ground, the private tutor covers the rest, and for him again the university has no responsibility.

In a teaching university, every student must be reached. The classes taught must fairly represent the subject and the numbers in each class must not be greater than the teachers can properly handle.

In the small college under the old régime, this work was divided among a group of professors. The elective system demands many more teachers and better ones, so far as class-room work is concerned, than the English system. It is, in fact, the element of choice, whether between fixed courses, or between courses, which is responsible for the great extension of the American college system, which is now at its height.

Needing many more teachers, without the means of making them all professors, and with the opportunity of trying them out before promotion, has called into being the great army of assistant professors and others of intermediate grade, who do most of the actual work with students in the American colleges and universities to-day.

It is manifest that no system of automatic promotion by which each of these can ever be assured of a professorship in his own institution, is possible. There will never be professorships enough to go around, and even the best men must often look for promotion elsewhere. Besides this, only a small percentage of these men show that combination of personality, character, scholarship, productiveness and force which should make them worthy of first-class professorships anywhere. In the promotion of these men, the interests of the university or college as a teaching body, in other words, the interests of the students, constitute almost the sole consideration.

It is a matter of wise administration to allow a reasonable minimum in each grade, enough to enable a man to live decently. It is well to make a small automatic addition to this from year to year. It is well that this addition should cease when

further promotion is not in the university's own interest. It is almost as injurious to overpay a mediocre man as to give a good man too little. The only justification for either is found in the limitations of financial ability and in the absence of means for exact valuation of the achievements and the possibilities of the various instructors. The rapid promotion of exceptional men is, under our system, a necessity. Equal pay under equal conditions considers the position, not the man, as the unit, and it is only possible under static conditions. Applied to the American university of to-day it would leave to the institution only the dregs of the faculty, unless its equal pay was held level with the maximum in other institutions. Except in two or three of our strongest universities, that course is at present impossible.

Because the university has assumed responsibility for all the necessary teaching, and this with the exaction of low fees, and in some parts of the country none at all, the assistant professor is part of the system as much as the professor. At the same time, the assistant professorship has risen through necessity, not through the voluntary choice of university authorities. We are not certain what he ought to be paid, how rapidly he should grow, or what should be his status in academic matters. These matters are mostly determined for us by necessity. We have not yet reached agreement as to whether he should have an equal voice or any voice in academic matters. University legislation usually tends to give him a nearly equal voice, regarding the academic executive as merely first among equals. University custom tends to hold the executive responsible for his associates, after the fashion of business corporations. There is justice in both points of view, and it is well for the universities that the two tendencies should continue

to strive with each other. But the final outcome will be that the president of the university will be the executive representative or spokesman, not the ruler of the faculty, and the department head will stand in similar relations to his fellows. Meanwhile the title is an academic honor, the salary a practical means to an end, and so long as our universities are in process of formation, the two will not bear any automatic or static relation to each other.

THE AMERICAN ASSOCIATION FOR THE
ADVANCEMENT OF SCIENCE
MEETING OF SECTION G (BOTANY)

SECTION G held three independent sessions for reading of papers, December 28 and 31, 1906, in the rooms of the botanical department, Schermerhorn Hall, Columbia University. The attendance ranged from about thirty at the last session, when the Botanical Society was holding a simultaneous meeting, to about one hundred and twenty-five. On December 28 a joint session with Section F (Zoology) was held at Teachers College, at which over three hundred persons were present. Owing to the absence, on account of illness, of the retiring vice-president, Dr. Erwin F. Smith, the hour assigned for his address was used for other papers.

During the past year there has been effected a union of three affiliated societies, viz., the Botanical Society of America, the American Mycological Society and the Society for Plant Morphology and Physiology, the combination bearing the name of the oldest and first mentioned of the three. This has simplified somewhat the relations of other botanical interests with Section G. The new Botanical Society held two sessions in which members of the section were largely present, the attendance then being over one hundred; one of these sessions was held at the New York Botanical Gar-

den, Bronx Park, after which all the visiting botanists were entertained at luncheon by the garden. The society held two sessions on December 31, simultaneously with Section G.

Forty titles were submitted for the program of Section G, from which about thirty papers were actually presented. The first six of the following were read before the joint session with Section F.

Elementary Species and Hybrids of Bursa:

GEORGE H. SHULL, Station for Experimental Evolution, Cold Spring Harbor, New York. (To be published in SCIENCE.)

Mendel's Law as a Tracer of Lost Parents

—I. *The American Carnation:* J. B. NORTON, U. S. Department of Agriculture.

In this paper it will be shown that the common greenhouse carnation is a hybrid type whose two parents are a single form and a very double form. These parental types have been extracted by ordinary breeding methods and recombined to produce a uniform hybrid first generation agreeing with the standard commercial types. This is the first experiment, so far as the author knows, that shows a commercial application of Mendel's law of heredity.

*Preliminary Note on Pollen Development in *Oenothera lutea* De Vries and its Hybrids:* R. R. GATES, University of Chicago.

Oenothera lutea is one of the mutants which does not mature its pollen, and hence must be pollinated from another species, producing a hybrid in the next generation. The plants studied were from a cross between *O. lutea* and *O. lamarckiana*, which is a Mendelian hybrid, showing in the next generation, according to De Vries, an aver-